

## CLAIMS

What is claimed is:

1. A multiple access, spread-spectrum communication system for processing a plurality of telecommunications information signals received simultaneously for simultaneous transmission over a radio frequency (RF) channel as a code-division-multiplexed (CDM) signal, the system comprising:

5 means for receiving a call request signal corresponding to a telecommunication line information signal, and a user identification signal identifying a user to which the call request and information signal are addressed;

10 a plurality of modem processing means, one of the plurality of modem processing means providing a global pilot code signal, and each of the modem processing means providing a respective message code signal and combining one of the plurality of information signals with the respective message code signal to provide a spread-spectrum processed message signal, the plurality of message code signals of the plurality of modem processing means being synchronized to the global pilot code signal;

15 assignment means responsive to a channel assignment signal for coupling the information signals received on the telecommunication lines to respective indicated ones of the plurality of modem means;

a system channel controller, coupled to a remote call-processing means and responsive to the user identification signal, for providing the channel assignment signal; and

20 an RF transmitter means, connected to each of the plurality of spread-spectrum processed message signals with the global pilot code signal to generate a CDM signal; for modulating a carrier signal with the CDM signal and for transmitting the modulated carrier signal through an RF communication channel.